HOW DO CURVED SPHERES INTERSECT IN 3-SPACE, OR TWO-DIMENSIONAL MEANDRA

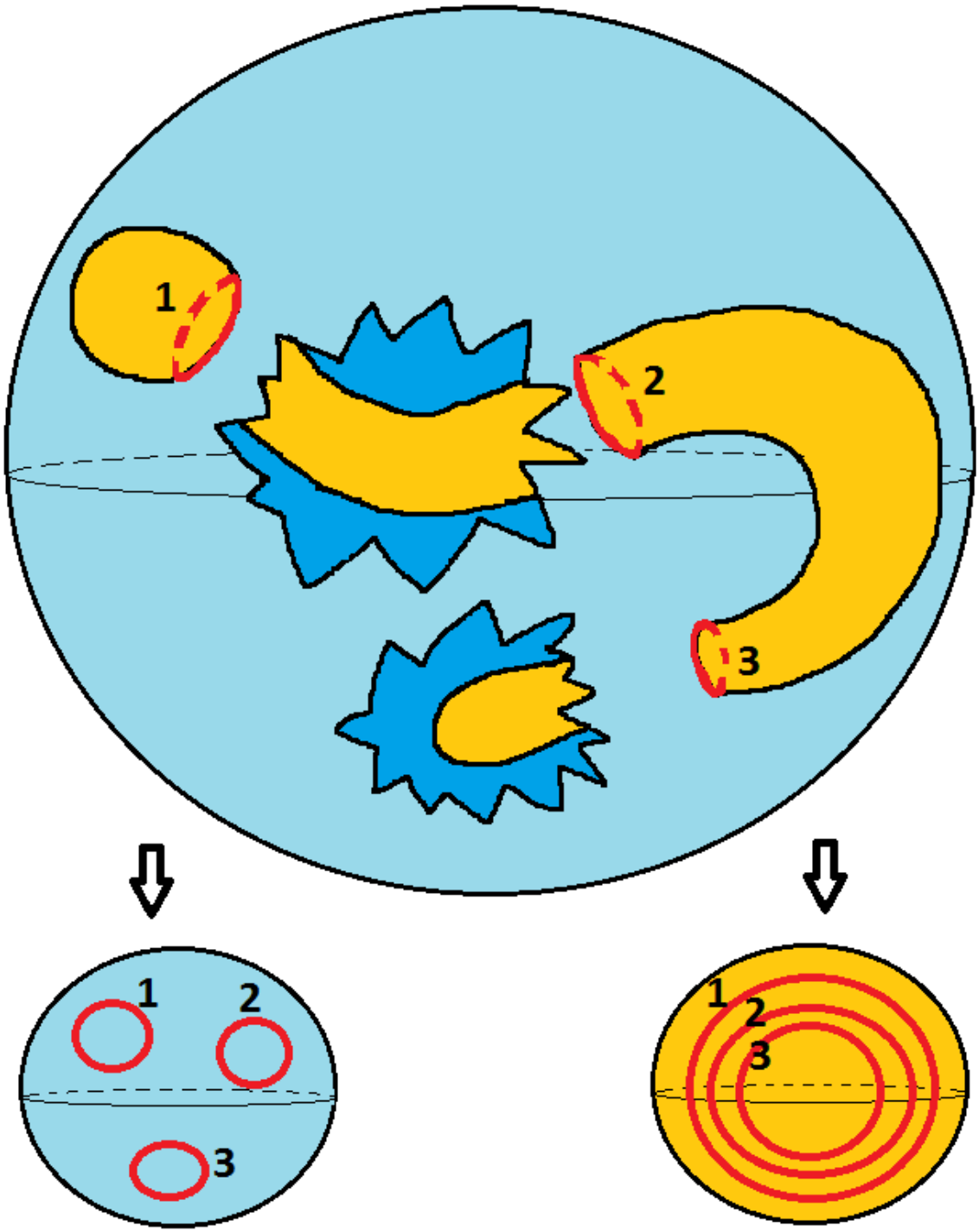

Fig. 2: curved spheres intersecting by three circles

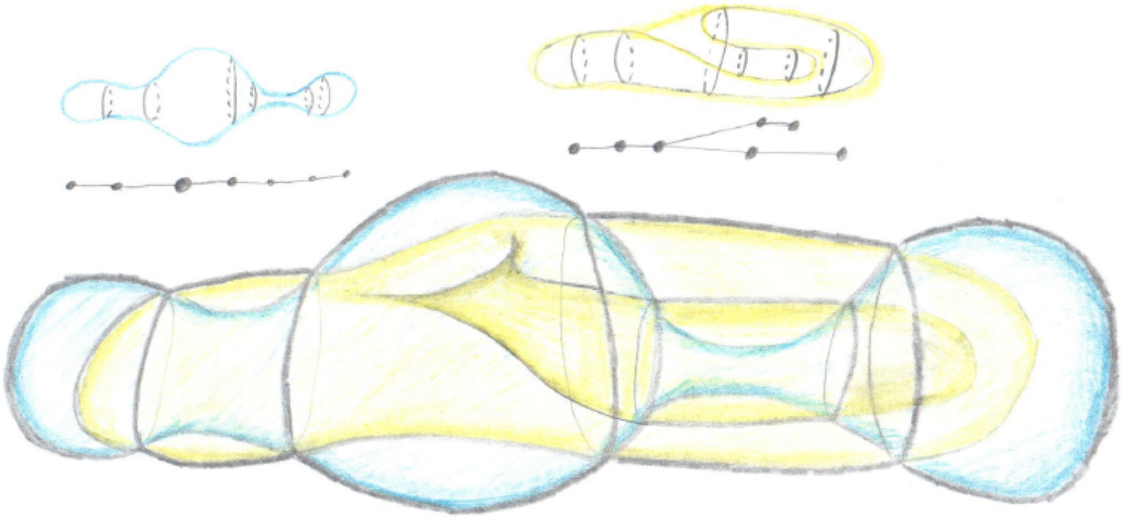

Fig. 13: two spheres realizing the pair in figure 7.

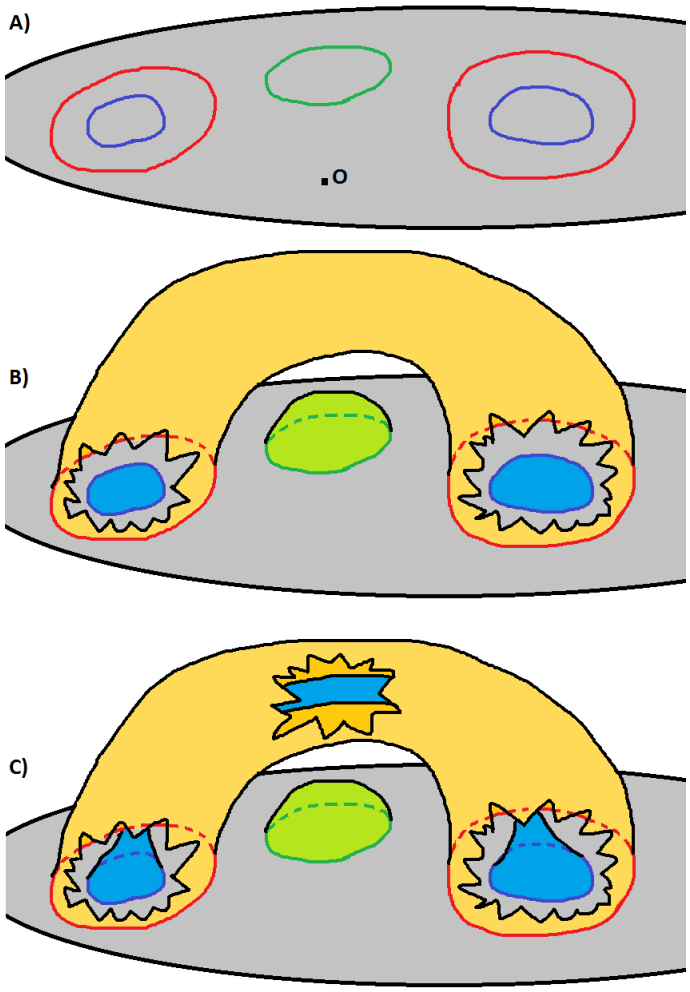

Fig. 18: to the solution of Problem 3.6.f. (A) We have S (gray), p_1 (red), p_2 (green), p_3 (blue). (B) We have that $\mathring{p}_3$ (blue) is the 'smallest'. We construct P_1 (yellow) and P_2 (green) by induction. (C) Connected components of $\mathring{p}_3$ (blue) can be connected by a path disjoint with $P_1 \cup P_2$. So we connect them by a tube and obtain P_3 (blue).